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Contact:

140 Broadway, 21st Floor  
New York, NY 10005

Tel: 212-380-2280

Fax: 212-380-2290

[www.fpcmlc.com](http://www.fpcmlc.com)



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# CIO Perspective



**Doug Dachille**  
CEO & CIO  
ddachille@fpcmlc.com  
212-380-2281

## The Interest Rate Conundrum

The decline in interest rates during the past year has left many fixed income investors perplexed. For those investors who sold longer term bonds and shortened portfolio duration at the end of last year in order to position for the "inevitable" increase in interest rates, describing them as perplexed is an understatement. After all, wasn't the basis for their repositioning of portfolio duration perfectly rational? Shouldn't the near term end to large scale asset purchases by the Federal Reserve (QE) and the ensuing initiation of monetary policy liftoff (a.k.a. raising interest rates) coupled with an uptick in inflation, housing market stability, an improving picture for economic growth and employment and record stock market prices lead to higher interest rates? Despite all of these fundamental signs that are seemingly supportive of higher yields, interest rates have fallen, with the most significant declines occurring in the longest maturity bonds.

Whenever economic fundamentals don't jibe with market pricing, the term "conundrum"

emerges as a way to sooth the investment performance wounds inflicted by a seemingly "irrational" market. Certainly, some portion of the decline in bond yields from last year's levels has a fundamental component, with reversion from the excessive rate increases that resulted from the market's overreaction to the initiation of QE tapering. While economic fundamentals strongly influence equilibrium pricing in the long run, a host of technical factors can impact bond market supply and demand in the short run, producing significant departures in prices from those based solely on fundamentals.

Importantly, the market impact of technical factors can trigger a self-fulfilling prophecy as market participants selectively focus on economic data to provide fundamental support for what are actually technically distorted market prices. In other words, if market pricing suggests the economy is sick, market participants will begin to identify even the most harmless sensations as symptoms of a serious disease. Medical students are quite familiar with the psychological power of suggestion and many second year students often suffer from the "disease of the week syndrome." This condition develops as medical students perceive the most innocuous signs in themselves as symptoms indicating they have the serious disease they are studying that week. Since psychosomatic disorders are not unique to any particular group, the market based form of hypochondriasis likely afflicts investors and monetary policymakers equally, leading to reinforcement of technically driven market pricing.

What technical factors could be contributing to the interest rate conundrum of 2014? A clue may be gained by examining the 12-month total returns for Barclays' Benchmark Bond Indices. One of the best performing indices over the past year has been the Barclays-Russell LDI 16 Year Index with a return of 12.45%. Since this index is not a household name, I decided to ask a number of seasoned fixed income traders, researchers and portfolio managers if they knew what the Barclays-Russell LDI 16 Year Index was comprised of and who the dominant users of this index for performance benchmarking purposes are.

While my casual survey would certainly not satisfy scientific standards, the results were still quite interesting. Very few of the professionals I spoke with had any idea what this index represented and who uses it. Based primarily upon the index performance, the respondents fell into one of two groups. One group surmised the index was related to the emerging markets, and postulated LDI was an acronym for "Less Developed Index." The second group thought the index was comprised of longer maturity investments, and LDI stood for "Long Duration Index." While neither group correctly identified the index acronym, its predominant user or its purpose, at least the second group stumbled upon the correct underlying assets.

The Barclays-Russell LDI (Liability Driven Investment) Index Series was introduced in 2012 to serve as an investable portfolio benchmark for asset management strategies seeking to replicate the performance of fixed cash flow

liabilities such as those typically encountered in defined benefit pension plans. The introduction of liability driven indices by Barclays in 2012 corresponded with pension plan sponsors paying much greater attention to fluctuations in the value of plan liabilities as part of the asset allocation decision process. Ironically, this has not always been the case.

To provide some historical perspective of the change in consideration being given to plan liabilities as part of the asset allocation decision process used by pension sponsors, I offer an anecdote from my past. In early 2000, Richard Dolan and I were invited to join the plan sponsor committee for a large employee benefit plan. At our first meeting as new plan trustees, we learned the plan liability had been converted from a traditional fixed rate benefit for active employees to a cash balance plan, while the retirees continued to participate in the original fixed rate plan. As a consequence of this conversion, the interest rate sensitivity of the plan liability was greatly reduced. Additionally, the conversion to cash balance reduced the long term liquidity afforded the plan, since unlike a traditional defined benefit plan, a cash balance plan affords the participant the ability to withdraw her balance, which typically involves a rollover into an individual retirement account, when leaving the firm.

Accordingly, I proceeded to ask my fellow trustees and the consultants and advisors in attendance, "Given the change that was made to the plan liabilities, what changes were

made to the asset allocation?" Based upon the facial expressions of the people around the conference table, it appeared I had asked a preposterous question. It was then explained that no changes had been made to the asset allocation, and there was no consideration given to the liability in the asset allocation process. The asset allocation objective of the plan was to maximize expected return for an acceptable level of return volatility, and since equities have a higher expected return in the long run, the plan had a significant allocation to equity funds.

In response, I posed the following question, "Didn't the conversion to a cash balance liability that allows a terminated participant to withdraw her plan benefit increase the risk the equity portfolio would need to be liquidated in a time horizon much shorter than the long run?" To further elaborate this point, I described to the plan sponsor group a highly conceivable scenario where a substantial weakening of the economy would result in a significant workforce reduction by the plan sponsor coupled with major declines in equity indices.

If all of the terminated employees elected to withdraw their cash balance plan benefits, the plan would be forced to sell some of its equity holdings in a poor performing market to satisfy the employee withdrawals. As a result, the portfolio would suffer from the performance of equity markets in the short run, and it would be unable to enjoy the higher expected returns assumed in the longer run. As I looked around the meeting room, the facial expressions of the

meeting participants once again provided incontrovertible evidence of their conclusions - the asset allocation decision could not ignore the risks associated with the plan liabilities.

At the end of the meeting, the Chairman of the group instructed me and Richard to develop a plan to rebalance the asset portfolio in such a way as to mitigate the plan liability risks. The combination of the large proportional allocation of the plan to equities with the tremendous equity market performance over the ensuing 5 years - the S&P 500 exceeded 1500 in March 2000 and it had tripled in price from 1994 - resulted in the plan being significantly overfunded. Our idea was to reduce the plan's equity holdings in an amount equal to the overfunding and use the proceeds to defease plan liabilities. This strategy would greatly reduce the possibility the plan could become underfunded prospectively as a result of some combination of declining equity markets and declining interest rates.

Since the overfunded amount for the plan roughly corresponded to the present value of the pension liability attributable to retirees, Richard and I decided to purchase terminal funding annuities to defease the retiree liability. The purchase of annuities would serve to reduce both the interest rate risk and the mortality risk of the plan. In September 2000, we were able to secure terminal funding annuities that would be fully collateralized by portfolios of high investment grade securities, with yields in excess of 7.0% - annuity yield levels

we may never see again in our lifetimes – from three of the highest credit quality insurance companies.

Unfortunately, a merger at the end of 2000 prevented the plan from executing the proposed sale of equities to purchase terminal funding annuities, since the merger partner was of the belief that equities in the long run would always outperform the 7+% yield available on the annuities. As a consequence, the subsequent equity market performance in 2001 and 2002 resulted in a major swing in the plan's funded status from significantly overfunded to underfunded. Even with equity markets currently trading at historic highs, the total return since 2000 on the S&P 500 has never come close to exceeding the 7% yield that was available on annuities at that time. I guess the long run has turned out to be much longer than many imagined.

Much has changed in recent years with regard to pension plan asset allocation and the consideration of the liability. While the Pension Protection Act of 2006 and accounting rule changes related to FAS 158 caused sponsors to pay more attention to changes in value of both plan assets and liabilities, even greater motivation emerged as the hypothetical scenario I proposed to my fellow trustees in 2000 became an economic reality in 2009.

Unfortunately, this increased focus on liability driven investing has coincided with historically low interest rates. Additionally, large scale asset purchases and so-called Operation Twist by the

Federal Reserve have resulted in a shortage of high credit quality and liquid long duration assets needed by pension plans to defease liabilities. If equity markets continue to rally further and more pension plans achieve overfunded status, demand for long duration fixed income assets will grow, placing further downward pressure on long-term interest rates. Liability driven investment activity by pension plans will create a seemingly perplexing correlation between equities and fixed income, with interest rates declining as equity markets rally. And for all those folks who think LDI stands for "Less Developed Index," these market movements will certainly be viewed as a conundrum!

# Rates, Inflation, Mortgages and Municipals



**David Ho**  
**MD, Asset Management**  
**dho@fpcmlc.com**  
**212-380-2292**

## Quick Read

- **Flattening of the yield curve continues**
- **A HECM of an opportunity in MBS**
- **Several Q2 boosts for the municipal market**

## Liquid rates

The liquid rates market rallied in Q2 2014, continuing the trend from Q1. A dovish Fed, ECB easing, the flare-up in Iraq and weak Q1 US GDP all provided support for fixed income markets. For the quarter, Treasuries rallied 11 basis points (bps), LIBOR swap rates decreased by 12 bps, and TIPS rallied 14 bps. The flattening trend continued; the yield difference between 30-year and 2-year Treasuries decreased by 24 bps for the quarter.

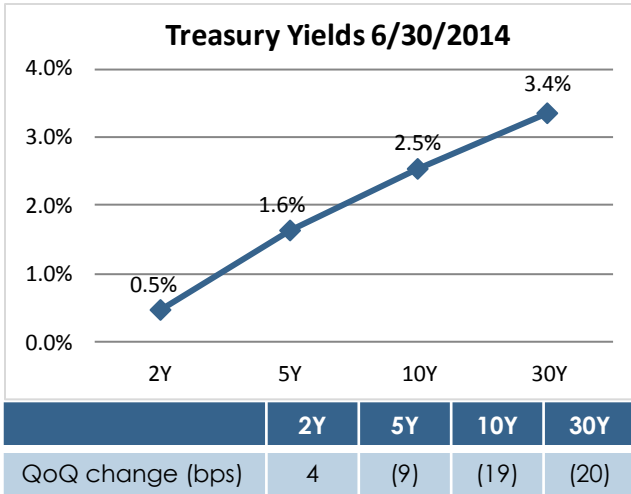
The sentiment of the Fed had decidedly turned dovish in Q2 from slightly hawkish in Q1. Fed Chair Yellen was very careful to downplay the six month timeline she had telegraphed to the market in Q1 regarding the timing between the end of tapering and the beginning of tightening. The Fed also signaled it would not be proactive but, rather, reactionary in

removing accommodation, requiring evidence that employment and inflation are moving solidly within if not beyond it's long-term target range.

The market has started to doubt the strength and speed of the economic recovery it had projected at the beginning of the year - especially after the anemic GDP print of -2.9% for Q1. The market also agrees with the Fed that inflation will be muted even though the unemployment rate continues to come down. This is evident from the break-even inflation market, which did not budge in Q2.

The combination of a more dovish Fed and weaker growth expectations by the market, fueled a bull flattening of the yield curve. We had been advocating a curve flattener since the beginning of the year. We also thought the 5-year LIBOR swap rate 5 years forward (5Y->5Y swap rate) looked like an attractive long at the beginning of the year. Both of these trade ideas have come to fruition. The yield spread between 30-year and 2-year Treasuries compressed to 290 bps as of June month-end from 359 bps at the beginning of the year. And the 5Y->5Y swap rate dropped to 3.70% as of June month-end from 4.67% at the beginning of the year.





Given the current environment and sentiment, it may make sense to take profit on these trades. Drawing from the last FOMC meeting, it looks like the Fed will be very slow to remove accommodation, and the market doesn't seem concerned. Until the market tests the Fed, the Fed will be very comfortable with its rhetoric and actions. The test will eventually come, and it should disproportionately punish the long-end of the yield curve, with break-even inflation leading the way.

In terms of rate levels, with the 5Y->5Y swap rate around 3.70%, there is little fundamental argument for upside - unless the economy heads decidedly south, which doesn't seem likely at this point in the economic cycle. Yet, if the market puts the Fed to the test, there could be significant upward pressure on this rate. This may not be a near term phenomenon, however. In the meantime, the entire yield curve will be anchored, and realized volatility very low. All of which may slowly drag rates even lower.

### Mortgage-backed securities

In Q2 2014, the MBS market outperformed other liquid rates products. For the quarter, the FNMA 30-year current-coupon mortgage rate was lower by 26 bps.

Low interest rate volatility, low supply, and continued purchases by the Fed all contributed to the strength of the MBS market for the quarter. For the last two months of the quarter, the 10-year swap rate traded in a tight range of roughly 20 bps. The net supply of MBS for the year has been slightly positive, yet the Fed is still net buying \$15 billion a month as of June month-end. These are all very favorable conditions to MBS, causing mortgage spreads to tighten.

Melvin Watt, the new director of the Federal Housing Finance Agency ("FHFA"), gave us the first significant glimpse into his thoughts regarding the future of the GSEs at a Brookings Institute speech in May. One can certainly sense a paradigm shift from the prior director, Edward DeMarco. DeMarco's primary focus was to boost the financial health of the GSEs by dispelling any talk of principal forgiveness and by aggressively putting soured loans back to the banks for rep and warranty breaches. However, Watt was clear that his priorities are to expand affordable housing and to make mortgage credit more readily available to borrowers. His first effort is to encourage current eligible homeowners to take advantage of the Home Affordable Refinance Program ("HARP") to reduce their interest expenses.

If successful, this will be to the detriment of super high premium MBS (5.0% coupon or higher), since a large percentage of eligible borrowers yet to take advantage of HARP are concentrated in these coupons.

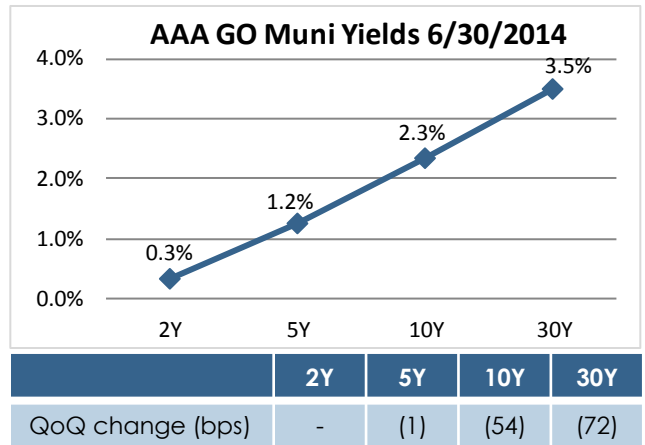
In the MBS universe, we like the economics of floaters stripped from FHA reverse mortgages, also known as Home Equity Conversion Mortgages ("HECMs"). HECM stripped floaters are guaranteed by Ginnie Mae, carry zero risk-weighting for banks, typically have very high caps (e.g., 11%), and by nature have very low interest rate duration risk. These floaters can be purchased at discount margins of around 50 bps. In comparison, Ginnie Mae floaters backed by level-pay mortgages trade at discount margins of around 20 bps; Fannie and Freddie floaters backed by conforming loans trade at discount margins of around 30 bps, and they carry a 20% risk weighting for banks. In addition, these more traditional floaters generally have much lower caps, (e.g., 7%).

A reverse mortgage is a loan to a homeowner, whose minimum age is 62, that allows her to draw cash from her home's equity without monthly mortgage payments. Instead, the loan negatively amortizes until a maturity event such as prepayment, death of the borrower, or sale of the property.

Prepayments for HECMs are driven less by interest rates and more by the age of the borrowers, housing prices, and cash needs. This looser correlation to levels of interest rates makes this asset class attractive as a diversifier from traditional mortgages.

## Municipal bonds

In Q2 2014, municipal bonds significantly outperformed other liquid rates products. For the quarter, municipal bonds rallied 32 bps. The municipal bond yield curve dramatically flattened in Q2 as well. For example, the spread between the Bloomberg AAA general obligation 30-year and 2-year yields flattened by 72 bps for the quarter and 88 bps year-to-date. In comparison, the spread between the 30-year and 2-year Treasury yields flattened by 24 bps for the quarter and 69 bps for the year.



Municipal bonds' sterling performance this year can be attributed to general fixed income strength, low supply, and improved recovery assumptions for general obligation debt. Most fixed income market participants were caught off guard by the strength of the market. Saddled with large amounts of cash, investors piled into long duration assets when economic data did not come in as strongly as expected and when it became apparent the Fed is unlikely to act preemptively.





Supply for the first six months of 2014 was approximately 84% of supply for the same period in 2013. Concurrently, municipal bond funds have seen positive inflows of \$5.8 billion this year compared to significant outflows of \$62.7 billion last year. Bond fund flows historically have provided good buying/selling signals for the market as these funds' marginal flows are dominated by retail investors. Retail investors are usually total return-oriented and backward looking from a return perspective. While the fund inflows this year are still well short of making up the deficit from last year, the trend has been encouraging, emboldening real and fast money managers to either add positions outright or extend the duration of their portfolios, driving yields down as a result.

Another boost for the municipal bond market during Q2 was the increase in the proposed recovery rate for Detroit unlimited tax general obligation debt. The latest proposal placed the recovery rate at 74%, a significant improvement from the 15% proposed before the city filed for Chapter 9 bankruptcy (though the latest proposal still placed recovery at 34% for limited tax general obligation debt). This helped the markets regain some confidence in the value proposition of municipal bonds.

Going into Q3, however, some of the forces that have supported the municipal bond market thus far may be absent. There are whispers that supply will pick up the slack, though not completely, from the first half of this year. Municipal bond fund flows, while still positive, are starting to slow down.

Puerto Rico passed the "Public Corporation Debt Enforcement and Recovery Act" in June, which provided a legal framework for restructuring of public corporation debt. This caused an immediate sell off of all non-general obligation debt of Puerto Rico.

Since two thirds of all municipal mutual funds own Puerto Rico debt in one form or another, this may place selling pressure on municipal bonds in general as these funds face redemptions. Given these potential headwinds, it might be prudent to start paring back on purchases of long duration bonds or at least be flat to the benchmark index while waiting for better opportunities.

# Corporate Credit



**Mark G. Alexandridis**  
**MD, Asset Management**  
**malexandridis@fpcmlc.com**  
**212-380-2293**

## Quick Read

- **The recent spike in covenant-lite loans has accelerated the debate over their role as harbingers of deteriorating credit standards**
- **The case against covenant-lite loans has yet to be substantiated by the data**

## Apocalypse Now?

The surfeit of cautionary articles on post-crisis evolution/devolution of the leveraged loan market has been overwhelming – and underwhelming in terms of equanimity and perspective. The central issue is the relaxation of traditional loan documentation standards that clearly favors borrowers. Even Federal Reserve Chairwoman Yellen, as early as 2011, acknowledged the developments in the leveraged loan market were noteworthy and warranted further attention. The prevailing questions are:

1. How have covenant-lite loans performed relative to traditional loans?
2. Does the reemergence of covenant-lite

suggest a wholesale deterioration in credit standards in an environment of low yields or is it a predictable development given a more diverse investor base?

## Background

Loans that lack the traditional financial/maintenance covenants are characterized as *covenant-lite*. Common financial/maintenance covenants include: maximum leverage ratio (debt/EBITDA), minimum interest coverage (EBITDA/interest expense), minimum fixed charge coverage ratio (EBITDA/aggregate of scheduled debt service), and capital expense. These negative covenants (borrower cannot breach these requirements) must be adhered to on a regular basis – typically quarterly. Failure to comply with any negative covenant is an immediate event of default. Upon default, the lender has a panoply of rights that range from immediate acceleration of the loan payment, termination of all commitments, to potentially foreclosing on collateral.

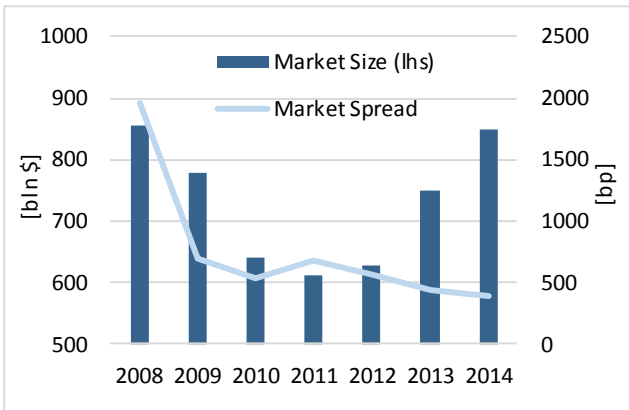
The covenants are unquestionably valuable to lenders. However, the lenders rights to accelerate the loan are infrequently exercised on the initial event of default. Rather, these covenants generally serve to provide lenders

an early warning of financial distress, and lenders customarily waive, amend, and/or extend the agreement in return for some combination of fees, higher spreads, or greater collateralization.

### Market developments

After contracting by nearly 30% from 2008-2011, the size of the leveraged loan market is approximately at its 2008 peak. And spreads on leveraged loans have just breached 400 bps for the first time since late 2007 – although they are well above the historical lows reached during the salad days of the LBO boom (Chart 1).

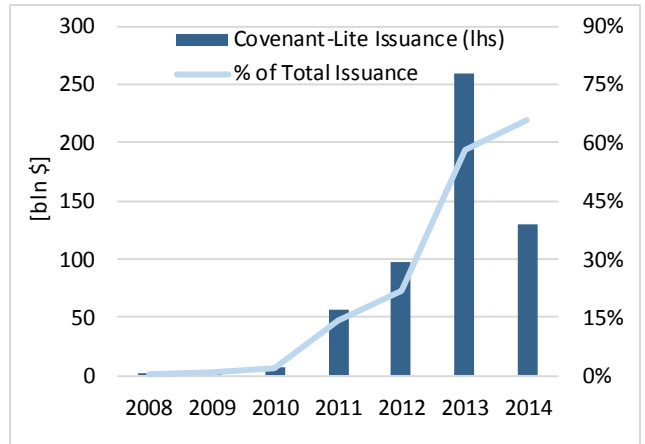
**Chart 1: Post-crisis Evolution of the Loan Market**



Source: JP Morgan / Credit Suisse

The rapid transformation of the market from traditional loans to covenant-lite loans is shown in Chart 2. More than 60% of the new issuance in 2014 is characterized as covenant-lite, and total issuance is expected to equal or exceed the volume experienced in 2013.

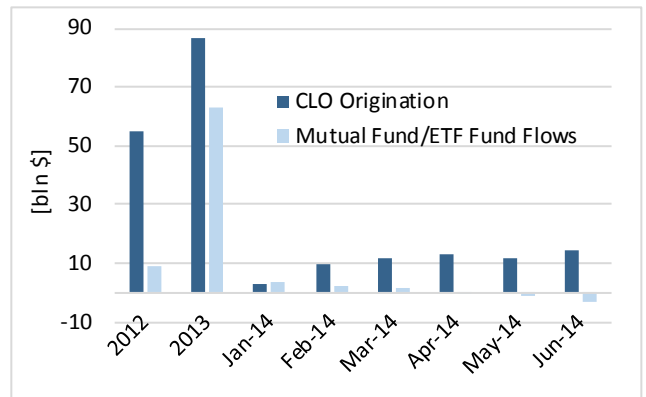
**Chart 2: Covenant-lite Issuance Surges**



Source: S&P

The advent of loan ETFs and the resurrection of the new issue CLO market have certainly fueled the growth of the market and wider acceptance of covenant-lite documentation (Chart 3). Although most rating agency criteria have been strengthened for CLO 2.0/3.0, the size of the covenant-lite bucket has actually increased from, on average, 40% to 60% -- although there is a haircut on the covenant-lite recovery assumption relative to that of a traditional loan.

**Chart 3: Loan Demand**

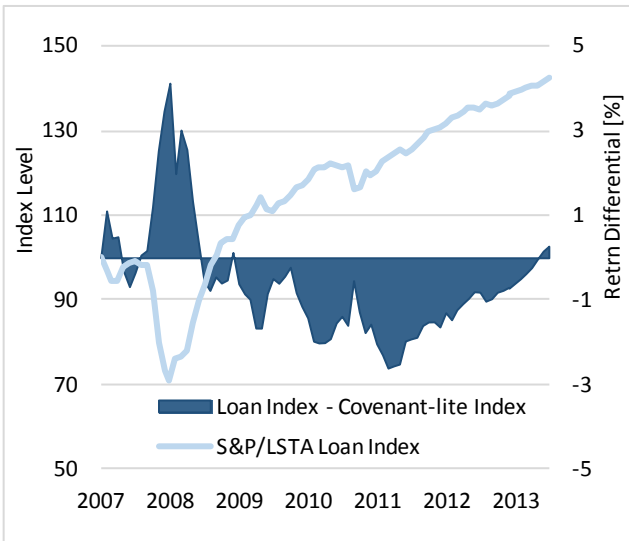


Source: JP Morgan / Lipper

### Performance

Chart 4 depicts the performance of the S&P/LSTA Loan Index. Since 2008, the market has had a total return in excess of 40%. The subset of the index comprising only covenant-lite issues has had virtually the same performance. The shaded area measures the return difference between the two indices through time. The largest peak underperformance (~4%) was experienced in December 2008. The covenant-lite and traditional indices rapidly converged in May 2009.

**Chart 4: Leveraged Loan Total Return**



Source: S&P / LSTA

The default and subsequent recovery rate comparison between traditional and covenant-lite loans indicate, to date, that there is no significant credit deterioration in the covenant-lite universe. In fact, the default rate is uniformly lower and the recovery rate is

higher in every year save 2014 as shown in Table 1 below. No BB covenant-lite has defaulted since 2008.

**Table 1: Post-Crisis Default/Recovery Experience**

	2008	2009	2010	2011	2012	2013	2014 LTM
Traditional Default Rate	4.4%	12.4%	2.0%	0.4%	1.1%	2.2%	6.6%
Covenant-lite Default Rate	0.8%	5.4%	1.6%	0.0%	1.8%	0.5%	0.4%
Traditional Recovery Rate	51.8%	48.2%	58.7%	64.1%	67.2%	46.0%	66.1%
Covenant-lite Recovery Rate	38.4%	48.8%	73.6%	N/A	77.6%	60.6%	57.8%

Source: JP Morgan / Credit Suisse

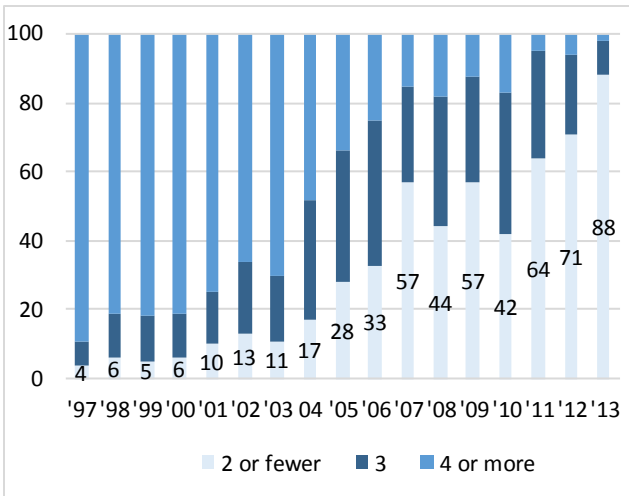
There is some merit to the argument the absence of financial covenants may have been beneficial to borrowers in that they were able to weather difficult economic times without the interference of lenders imposing new constraints and extracting further financial concessions in the best case and avoiding immediate bankruptcy in the worst situations.

In the last 12 months, there have been 14 distinct defaults in the market, only two were covenant-lite. The surge in the default rate is largely attributed to the \$19 billion default of Energy Future Holdings (TXU) in April. As an aside, the loan documentation for EFH was characterized as traditional and contained **one** single financial maintenance covenant.

### Covenant-heavy?

The protection from financial/maintenance covenants lenders enjoy in traditional loans has been systematically undermined through time. And this process began long before the era of outsized LBOs (2005 – 2008). In 2004, more than 50% of the universe had only three covenants as shown in Chart 5. Fast forward to 2013 and 88% of all traditional loans had no more than two financial covenants – 49% had exactly one – and only 2% had more than four! In essence, the credit risk in a leveraged loan is now roughly comparable to that of a secured high yield bond.

**Chart 5: Traditional Loan Average Number of Maintenance Covenants [%]**

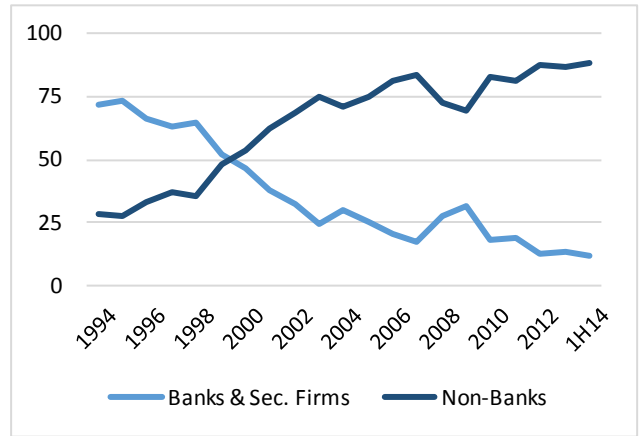


Source: S&P

Much of the change in documentation can be attributed to the transition of the lenders (Chart 6) from the insular, sclerotic bank market -- that harbored very large concentrated positions

and had the resources to monitor, manage, and negotiate with borrowers -- to the institutional and retail markets.

**Chart 6: Primary Market for Highly Leveraged Loans, Banks vs Non-Banks [%]**



Source: S&P

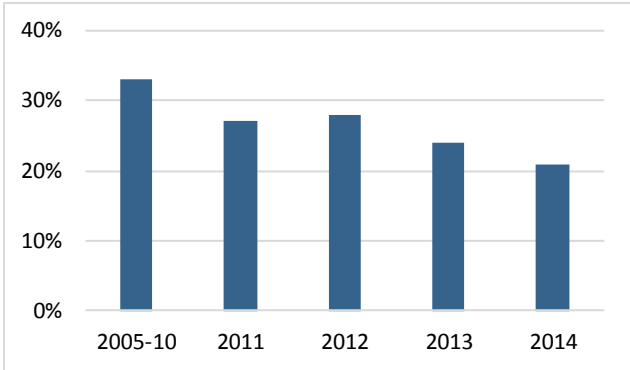
### Conclusion

There exists scant evidence the absence of financial/maintenance covenants in a loan makes them inherently less creditworthy. In fact, if one wanted to torture the limited available -- and somewhat disparate -- data, one might conclude (wrongly) just the opposite. The reality is traditional (covenant-heavy) loans have been shedding lender protections for years and today the difference between traditional and covenant-lite loans is virtually a matter of semantics.

This does not however imply the leveraged loan market is not exhibiting signs of excess. New issuance is being dominated by B credits. The debt cushion below first-lien loans – a

significant determinant of the ultimate recovery in bankruptcy – is getting palpably smaller (Chart 7), and the growth of bank-only debt structures is growing.

**Chart 7: Debt Cushion below First-Lien**



Source: Moody's

Subtle and troubling changes are being made to documentation, such as allowing additional senior secured debt to be issued alongside existing loans under certain conditions and/or dividends to be paid if certain financial criteria are met.

Nonetheless, the sector is among the most attractive in fixed income on a risk-adjusted basis. However, given the absolute level of spread, credit selection is paramount and is further complicated by increasingly bespoke documentation and sponsors with objectives that may not be completely aligned with senior lenders.

*Note: Sandy Jephson, Senior Credit Analyst, also contributed to this piece.*



# Emerging Markets Debt



**Prasad Kadiyala**  
 MD, Asset Management  
 pkadiyala@fpcmlc.com  
 212-380-2297

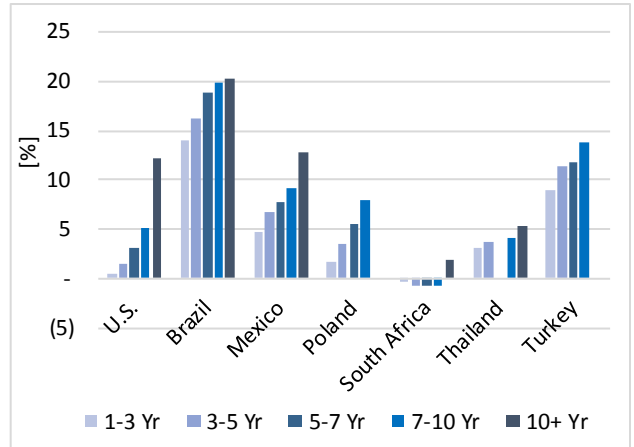
## Quick Read

- **Emerging Markets Debt funds experienced increased inflows over the quarter, both hard and local-currency-denominated**
- **Growth and improving fundamentals of EM build a compelling investment thesis**

## Upward trajectory

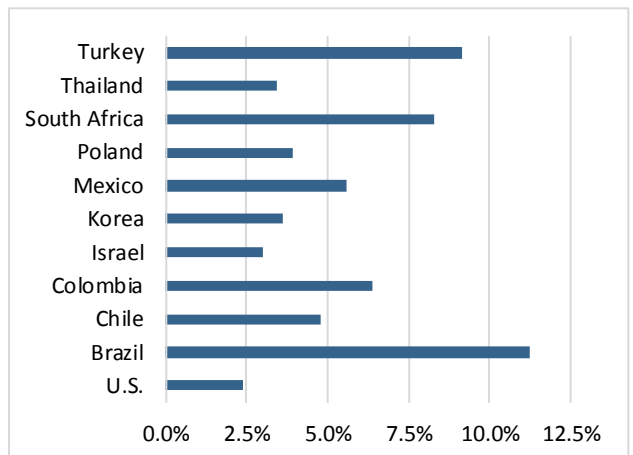
Emerging Markets ("EM") continued on their upward trajectory from Q1 2014 end and turned in a strong Q2 performance. The broadly followed JP Morgan EMBI+ Index, representing hard currency EM securities, had a YTD return of 9.47% (of which approximately 3.75% was due to spread compression and the rest a rally in U.S. rates). The JP Morgan local currency Government Bond Index-Emerging Markets Diversified Index ("GBI-EM Diversified") reported a corresponding YTD return of 6.31% in USD. The difference in the returns is attributed, in large part, to the longer duration of 7.46 of the EMBI+ Index compared to 4.6 duration for GBI-EM Index. As in U.S. rates market, longer maturity EM securities significantly outperformed short dated securities (Chart 1).

**Chart 1: YTD Local Bond Returns (USD) by Maturity**



Additionally, within the index universe, lower rated securities had significantly higher returns than higher rated securities. In spite of the strong rally, EMBI+ with a yield of 5.3% (spread of 283 bps) and GBI-EM Diversified with a yield of 6.5% continue to be attractive on a relative basis (Chart 2).

**Chart 2: Nominal yields (10 Yr maturity)**



EM experienced increased inflows over the quarter for both hard currency and local currency-denominated funds. Cumulative YTD flows into external debt reversed the outflows from Q1 and ended Q2 with inflows of +\$10.9 billion. Although local currency funds also reversed the flow direction, they ended Q2 at -\$6.9 billion of outflows YTD. In recent weeks, however, the velocity of inflows to local currency funds has been considerably higher.

Overall, markets seem to have reacted positively to proactive steps taken by respective central banks (Brazil and South Africa increased rates, while Mexico, Chile, and Turkey cut rates). These central bank actions give further credence to the “maturing” of EM economies and enhance their case as attractive investment opportunities.

### **Push and pull**

A concern often voiced by market commentators is that the impending increase in U.S. rates could quickly reverse the observed flows into EM and result in a significant sell-off. The main drivers of EM flows can be classified into two categories: “push” and “pull” factors. Push factors are driven by global macro dynamics; generally attributed to fiscal and monetary policies of developed markets. Pull factors evolve from characteristics specific to EM economies themselves. Recent studies have

shown push factors played an outsized role during periods of stress such as 2007-08 crisis<sup>1,2</sup>. However, during periods of normalization resulting from gradual business cycle improvement (a plausible view of the current state of DM economies), the impact of push factors such as ten year U.S. rates are expected to be muted.

IMF data show EM continues to grow at approximately twice the rate of DM. This, combined with the improving fundamentals of EM economies, builds a compelling thesis for a long-term strategic investment allocation to EM.

EM pull factors can be relatively dynamic (e.g., political unrest) and can be significantly different across countries. Such temporary dislocations in EM further augment the case for an active investment management of EM portfolios.

<sup>1</sup> Capital Flows, Push Versus Pull Factors and the Global Financial Crisis, Marcel Fratzscher, July 2011, ECB Working Paper No 1364.

<sup>2</sup> Emerging market Sovereign Bond Spreads: Estimation and Back-testing, Fabio Comelli, August 2012, IMF Working Paper wp/12/212

# Asset Backed Securities



**Richard Dolan**  
CFO  
rdolan@fpcmlc.com  
212-380-2283



**Rongfeng "Becky" Li, CFA**  
VP, Asset Management  
bli@fpcmlc.com  
212-380-2296

## Quick Read

- Federal Reserve's QE moves have been confounded by sharply falling velocity of money
- Rising student loan indebtedness impacts velocity of money
- Strong consumer credit performance continues

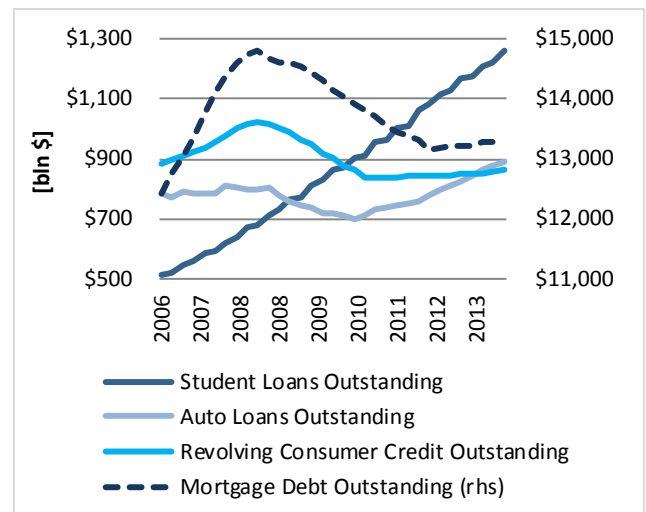
## Consumer debt continues to rise, while money velocity falls

Consumer credit (excluding mortgage indebtedness) continued its four-year expansion and reached yet another record high level of \$3.18 trillion in April 2014, according to the Federal Reserve. A majority (73%) of consumer credit continues to be in the non-revolving category, which includes mostly auto loans and student loans. Non-revolving

growth has been driven primarily by two factors. First, vehicle sales have been strong, with 16.9 million units sold on a seasonally adjusted annual basis in June 2014. This is the highest auto sales level in eight years. Second, hope springs eternal as student loans outstanding continued to increase with more people pursuing higher education in the wake of the Great Recession.

By comparison, revolving credit outstanding, primarily higher-cost credit cards, stayed at \$870 billion – largely unchanged since 2010. However, credit card debt has finally started to increase modestly in recent months, as lenders issued 3.7 million new cards to subprime borrowers in Q1 2014 (up 39% y/y), according to Equifax.

**Chart 1: U.S. Consumer & Mortgage Debt Outstanding.**



Source: Federal Reserve

Although total consumer credit outstanding rose by \$502 billion since Q2 2008, mortgage debt outstanding actually has fallen by \$1.54 trillion over the same period to \$13.27 trillion in Q1 2014 (Chart 1). Therefore, we're still approximately \$1 trillion lower in debt than pre-recession levels. The shift in growth patterns of different types of indebtedness may have contributed to a slower than expected GDP growth profile, despite the Fed's \$3.5 trillion Quantitative Easing (QE).

Since late 2008, the Federal Reserve has undertaken unprecedented steps to massively increase money supply in the hopes of boosting GDP. However, the impact and efficacy of QE appear somewhat limited, confounded by sharply falling velocity of money. Velocity measures the rate at which money in circulation is used for purchasing goods and services, etc. In general, if money supply increases and velocity stays constant, then nominal GDP must increase. When velocity is increasing, more transactions are taking place in the economy, leading to more robust economic growth, and vice versa. However, as the late economist Paul Samuelson once said, "Money velocity does not stay constant." Indeed, M2 money velocity ( $GDP / M2$ ) has fallen by 21.5% from 1.91 in 2Q 2008 to 1.5 in Q1 2014. While there are likely many macroeconomic forces contributing to the recent decline in velocity (general

deleveraging, underwater home equity, etc.), changing borrowing behavior of the U.S. consumer added to the decline.

### **You can lead a horse to water . . .**

Against the backdrop of \$1.5 trillion of mortgage deleveraging, the recent increase in consumer indebtedness has been driven primarily by the enormous growth in student loans, which increased \$582 billion since Q2 2008. By comparison, car loans have only risen by \$94 billion. A borrowing level 5 times higher than auto loans (with a relatively robust auto industry) shows the magnitude of investment currently being spent on higher education, albeit with uncertain future prospects.

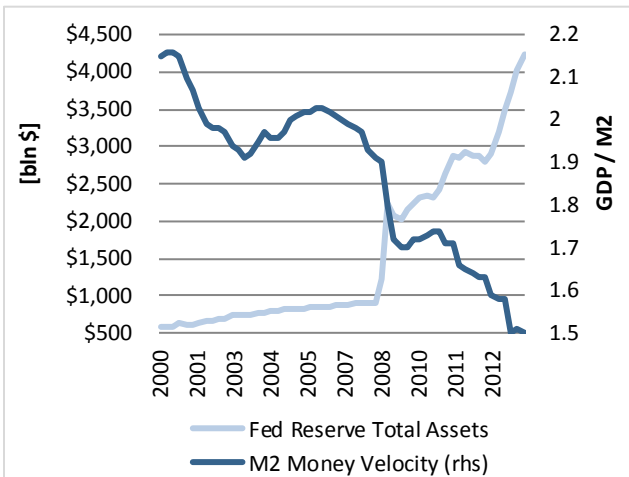
At a simplified macro level, the U.S. consumer in aggregate has been paying down mortgage debt and adding primarily student loan debt. This changing borrower behavior is likely contributing to the decline in the velocity of money.

In terms of near-term economic consequences, assuming we are not near full capacity in the U.S. higher education system, the incremental borrowing leading towards enrollment of more students in colleges and universities does not generate the same level of incremental economic growth as the equivalent amount of mortgage debt going towards home purchases. As such, one would expect velocity

to slow. For example, a popular college professor can be just as effective teaching 35 or 40 students in a lecture hall, whereas a new home purchase triggers direct economic activity – from legal closing fees and title insurance premiums, hiring of construction workers, to the purchase of furniture.

Student loan indebtedness impacts velocity from another perspective: the type of lender of the student loan itself. Since 2010, a majority of student loans have been originated by the Federal Government under the Department of Education's Direct Loan program - rather than by private commercial banks. Due to the crowding-out effect, direct government lending limits the growth of money supply in the banking system – thereby limiting velocity, and further negating the impact of QE.

**Chart 2: Fed's Balance Sheet vs. Money Velocity ( . . . but you can't make him drink)**



Source: Federal Reserve / Bloomberg

**Strong consumer credit performance continues but could see weaker performance**

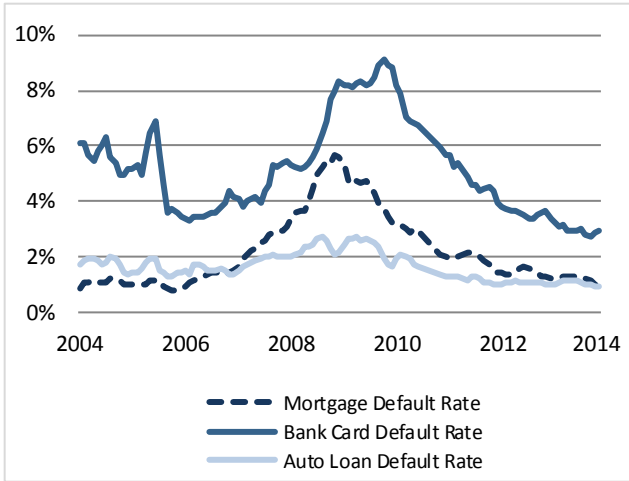
ABS issuance has been active in the first half of 2014, with total issuance of \$107 billion. This represents an increase of \$10 billion - or 11% - over the first half of 2013, driven by \$12 billion of higher credit card issuance and \$7 billion of higher auto; offset by a \$6 billion reduction in student loans and a \$4 billion reduction in other ABS.

Credit spreads for most new ABS issues and secondary markets tightened in the first half, with AAA prime auto ABS tighter by 9 bps and private student loans by 62 bps. In general, the lower the quality of the collateral, the greater was the spread tightening, as investors continue to chase yield. However, ABS underperformed most of its fixed income peers with a total return of 1.18% in the first half, according to Bank of America/Merrill Lynch.

While consumer credit has been expanding, consumer credit performance in the U.S. remains strong due to historically low interest rates and falling unemployment rates. Performance in terms of delinquency and default for autos and credit cards is actually better than prior to the onset of the credit crisis in 2007. In fact, default rates for bank credit cards, auto loans, and first mortgages are at or near the lowest rate in the past ten years. We can see this clearly in Chart 3 below based on monthly S&P/Experian default rates.

Separately, consumer bankruptcy filings continue to fall with 461,000 in H1 2014 (down 12% year-over-year), according to American Bankruptcy Institute.

**Chart 3: S&P/Experian Consumer Credit Default Rates**



Source: S&P

It should be pointed out that the bank credit card default rate went up slightly in the past two months reaching 2.97% in May 2014 from an all time low of 2.73% in March 2014. This was driven by more new credit cards issued to subprime borrowers. According to Equifax, approximately 33% of all new credit cards issued in Q1 2014 were to subprime borrowers, up from about 30% in Q1 2013. This is the highest share of new subprime credit card issuance since 2008. At the same time, the average interest rate for subprime borrowers went up to 21.1% in Q1, vs. 20.2% a year earlier.

Overall, auto default rates remained very low

at 0.93% in May 2014, as the strength in the prime auto sector continues. However, subprime auto loans have experienced a pick-up in delinquency and default rates since 2013, with charge-off rates in the 4% to 5% range. This is unsurprising as auto lenders (captives and banks) have relaxed their underwriting standards in the past three years by allowing longer repayment terms and higher LTVs, especially for subprime borrowers with FICO scores under 620. According to Experian Automotive, the average term for a subprime auto loan has reached 71 months, a record length.

We continue to expect delinquency and default rates to slowly change direction over the next few quarters and trend upward moderately, given loosening underwriting standards in response to competitive pressures at this late stage of recovery.





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